

REMARKS

The present Amendment is in response to the Examiner's Office Action mailed June 2, 2006. New claims 25 and 26 have been added. Claims 1-26 are now pending in view of the above amendments.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants understanding and discussion of the references, if any, is consistent with the Examiner's understanding.

I. PRIOR ART REJECTIONS

A. Rejection Under 35 U.S.C. § 103

The Examiner rejects claims 1-24 under 35 U.S.C. § 103 as being unpatentable over *Beaudry et al.* (U.S. Patent No. 6,597,195) in view of *DeFelice et al.* (U.S. Patent No. 6,836,321). Applicants traverse the Examiner's rejection for obviousness on the grounds that the Examiner's combination of *Beaudry* with *DeFelice* is improper for lack of motivation for the proposed combination, fails to address elements of the claims, and has not established a reasonable expectation of success.

According to the applicable statute, a claimed invention is unpatentable for obviousness if the differences between it and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103(a) (2005); *Graham v. John Deere Co.*, 383 U.S. 1, 14 (1966); MPEP 2142. Obviousness is a legal question based on underlying factual determinations including: (1) the scope and content of the prior art, including what that prior art teaches explicitly and inherently;

(2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness. *Graham*, 383 U.S. at 17-18; *In re Dembiczak*, 175 F.3d 994, 998 (Fed. Cir. 1999). It is the initial burden of the PTO to demonstrate a *prima facie* case of obviousness, which requires the PTO to show that the relied upon references teach or suggest all of the limitations of the claims. MPEP 2142 (emphasis added).

According to MPEP section 2143:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

(Emphasis added).

Beaudry relates to the use of integrating spheres for measuring light output of light emitting diodes. Col. 1, lines 5-9. Integrating spheres are well known instruments for measuring the total luminous flux of a lamp or luminare. The source is place inside a sphere whose inside surface has a diffusely reflecting white finish, and the light reflected from this surface onto a window is measured by an ordinary photometer.¹ *Beaudry* discloses cassettes C for use in a burn-in rack shown in Figure 2 and then for integrated sphere optical measurements during light testing as shown in Figure 4. See col. 1, lines 60-64.

DeFlice relates to testing bottom-emitting vertical cavity surface emitting lasers (VCSELs) at an intermediate stage of their manufacture. Col. 4, lines 17-20. As such, *DeFlice* requires a probe in the form of an optoelectronic array 16 that must be both electrically and optically coupled to the array of VCSELs supported by the substrate. See col. 3, lines 36-38.

The Examiner has not shown that the combination of *Beaudry* and *DeFlice* teach or suggest every element of the claims. Claim 1 requires that the optical detector assembly be mounted to the support structure. Claim 6 requires a test apparatus configured to hold both the

¹ McGraw-Hill Dictionary of Scientific and Technical Terms, page 1028 (8th ed. 1994)

burn-in rack and an assembly of optical detectors. Claim 20 requires a step for mounting a burn-in rack having a plurality of optoelectronic devices to a test apparatus having an array of optical detectors.

However, the probe 16 of *DeFelice* mounts directly to the electrical contacts 30 of the VCSELs supported by the substrate 12. See Figures 1 and 2. As such, the Examiner has not shown an optical detector assembly mounted to a support structure as required by claim 1, a test apparatus holding both the burn-in rack and an assembly of optical detectors as required by claim 6, or a step for mounting a burn-in rack having a plurality of optoelectronic devices to a test apparatus having an array of optical detectors as required by claim 20.

Moreover, *Beaudry* includes the optical integrating sphere 15 for optical measurements taken during life testing. Replacing the optical integrating sphere 15 with the probe of *DeFelice* would entirely alter the operation of *Beaudry*. In fact, it appears to the Applicant that the teachings of *DeFelice* are physically not combinable with *Beaudry* in the manner proposed by the Examiner. For example, the Examiner refers to the integrating sphere 15 in Figure 4 as the support structure in rejecting claim 1. However, the purpose of the integrating sphere is to measure light output of the LEDs during life testing. If the probe of *DeFelice* were used as proposed by the Examiner, there would be no need for the integrating sphere as a redundant light measuring apparatus. As such, the proposed combination would remove the alleged support structure and therefore does not teach or suggest every element of the claimed invention. As such, a *prima facie* case of obviousness has not been set forth and the Applicants respectfully request that the rejections of claims 1, 6, and 20 be withdrawn.

One must also be **motivated** by the prior art to make the modification necessary to arrive at the present invention. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). Absent such motivation, a rejection based on a combination of references is unsupported and any rejection based on such a combination must be withdrawn.

DeFelice does not relate to burn-in testing or life testing of optoelectronic devices. Moreover, the probe disclosed by *DeFelice* is also not designed to be used during burn-in and life testing, but merely discloses an optoelectronic array for testing during an intermediate manufacturing stage. The structural aspects of the probe disclosed by *DeFelice* are also much different from the Applicant's claimed invention. For example, because the VCSELs are still incorporated within a substrate 12 in *DeFelice*, the probe includes electrical contacts 30 for

exciting the VCSELs supported by the substrate 12. These contacts would simply not be needed (i.e. would be useless) if there were a burn-in rack exciting the optoelectronic devices as alleged by the Examiner. As such, a *prima facie* case of obviousness has not been set forth and the Applicants respectfully request that the rejections of claims 1, 6, and 20 be withdrawn.

Finally, there must be a reasonable expectation of success. However, the Examiner has not established that the probe of *DeFelice* is physically combinable with the teachings of *Beaudry*. For example, in *Beaudry* the cassette is tested within the integrating sphere. See Figure 4. However, it is unclear if the Examiner proposes replacing the integrating sphere with the probe of *DeFelice* or if the probe of *DeFelice* is to be mounted within the integrating sphere of *Beaudry* in some manner. Quite simply, the Examiner has not established a reasonable expectation of success by describing exactly how the references are combinable. Rather, the Examiner has used the Applicant's claims as a blueprint to selectively pick elements from the references to deprecate the Applicant's claimed invention. It is well established that it is error to reconstruct the Patentee's claimed invention from the prior art by using the patentee's claim as a "blueprint." When prior art references require selective combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight obtained from the invention itself. *Interconnect Planning Corp v. Feil*, 774 F.2d 1132 (Fed. Cir. 1985). As such, a *prima facie* case of obviousness has not been set forth and the Applicants respectfully request that the rejections of claims 1, 6, and 20 be withdrawn.

Claims 2-5 depend from claim 1, claims 7-11 depend from claim 6, and claims 21-24 depend from claim 20. If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As such, the Applicants respectfully request that the rejection of claims 2-5, claims 7-11, and claims 21-24 be withdrawn at least for the same reasons as claim 1, 6, and 20.

Regarding independent claim 12, the patent office has not established that the proposed combination of *Beaudry* and *DeFelice* teach or suggest the corresponding structure for the means-plus-function elements of this claim as required by MPEP 2181-2183. According to MPEP 2181 Section I, "[a] claim limitation will be interpreted to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis:

- (A) the claim limitations must use the phrase "means for" or "step for;"
- (B) the "means for" or "step for" must be modified by functional language; and

(C) the phrase "means for" or "step for" must not be modified by sufficient structure, material or acts for achieving the specified function."

In contrast to the Examiner's assertions, 35 U.S.C. 112, sixth paragraph is invoked for claim 12 because claim 12 uses the phrase "means for" in three instances, which is modified by the functional language "for supporting a plurality of optoelectronic devices that are capable of undergoing a burn-in process;" "for detecting one or more optical signal output characteristics of each of said plurality of optoelectronic device; and" "for delivering a drive current to each of said plurality of optoelectronic devices and for measuring an output from said means for detecting." These means-plus-function limitations are not modified by sufficient structure for the claim function.

The Applicant's disclosure provides structural support for such functional limitations. After the Patent Office has identified the corresponding structure support in the Applicant's specification the Patent Office must point to equivalent corresponding structure in the Prior Art. "The Office Action should clearly communicate the findings, conclusions and reasons which support [the rejection]" (MPEP 2106 Section VII), which the Patent Office has failed to do. Therefore a *prima facie* case of anticipation has not been established with respect to claim 12. As such, the Applicant respectfully requests that the rejection of claim 12 be withdrawn at least for the reason that the Office Action fails to identify structure in the prior art structure that anticipates the means-plus-function elements of claim 12 as required by MPEP 2181-2183.

Claims 13-19 depend from claim 12. As discussed above, if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. As such, the Applicants respectfully request that the rejection of claims 13-19 be withdrawn at least for the same reasons as claim 12.

II. NEW CLAIMS

Claims 25 and 26 have been added and are allowable at least for the same reasons as the claims from which they depend.

CONCLUSION

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 2nd day of October, 2006.

Respectfully submitted,

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